

McKEE'S ROCKS BRIDGE
Pennsylvania Historic Bridges Recording Project
Spanning Ohio River at Chartiers Ave. (State Rt. 3104)
McKee's Rocks
Allegheny County
Pennsylvania

HAER No. PA-445

HAER
PA
2-MCKRQ
2-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
1849 C Street, NW
Washington, DC 20240

HISTORIC AMERICAN ENGINEERING RECORD

McKEE'S ROCKS BRIDGE

HAER No. PA-445

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Location: Spanning Ohio River at Chartiers Ave. (State Rt. 3104), between McKee's Rocks and Pittsburgh, Allegheny County, Pennsylvania.

USGS Quadrangle: Pittsburgh West, Pa. (7.5-minute series, photorevised 1979).

UTM Coordinates: 17/580670/4481140

Dates of Construction: 1929-31.

Designer: Allegheny County Department of Public Works.

Builders: Fort Pitt Bridge Works (Pittsburgh), superstructure; Dravo Engineering Works (Pittsburgh), substructure.

Present Owner: Pennsylvania Department of Transportation.

Present Use: Vehicular bridge.

Significance: The McKee's Rocks Bridge is an outstanding example of a long-span metal through arch bridge constructed by Allegheny County as part of an intensive bridge-building campaign during the late 1920s and early 1930s. The bridge is also significant because of its designers and builders, notably the engineers and architects in the Allegheny County Department of Public Works' Bureau of Bridges. The McKee's Rocks Bridge was listed in the National Register of Historic Places in 1988.

Historian: Dr. David S. Rotenstein, August 1997.

Project Information: This bridge was documented by the Historic American Engineering Record (HAER) as part of the Pennsylvania Historic Bridges Recording Project - I, co-sponsored by the Pennsylvania Department of Transportation (PennDOT) and the Pennsylvania Historical and Museum Commission during the summer of 1997. The project was supervised by Eric DeLony, Chief of HAER.

CHRONOLOGY

- 15 May 1914 Allegheny County Engineer instructed to request a hearing before the War Department regarding proposed McKee's Rocks Bridge.
- 10 July 1914 Allegheny County Engineer directed to prepare plans and a cost estimate of the proposed McKee's Rocks Bridge.
- 24 July 1914 Allegheny County Commissioners hire Edwin K. Morse as consulting engineer for McKee's Rocks Bridge.
- 27 August 1915 Allegheny County Commissioners acknowledge defeat of petition to U.S. War Department for construction of short (less than 1,100'-0") span for McKee's Rocks Bridge. Commissioners instruct County Engineer to accept 1,100'-0" span. County begins drafting an act to send to U.S. Congress to authorize bridge.
- 9 July 1918 U.S. Secretary of War informs Allegheny County that the War Department will not reopen the channel span issue on proposed bridge.
- 27 February 1919 U.S. Congress passes act authorizing Allegheny County to build McKee's Rocks Bridge.
- 14 June 1920 U.S. Congress extends act authorizing construction of McKee's Rocks Bridge, giving Allegheny County an additional two years to begin construction.
- 8 April 1921 Allegheny County again petitions U.S. War Department to approve a shorter (900'-0") channel span for proposed McKee's Rocks Bridge.
- 13 February 1929 U.S. Congress revives act authorizing McKee's Rocks Bridge.
- 2 April 1929 Department of Public Works authorized to advertise for bids to construct bridge.
- 12 August 1929 Construction of bridge begins.
- 19 August 1931 McKee's Rocks Bridge dedicated and officially opened to traffic.

DESCRIPTION

McKee's Rocks Bridge is a sixteen-span through arch structure spanning the Ohio River with a total length of 5,900'-0". The main channel span, Span No. 13, is 750'-0-3/4" long. There are two 300'-0" crescent through arch spans on the McKee's Rocks approach over the Pittsburgh and Lake Erie Railroad. Also, there are nine steel deck truss spans comprising 1,504'-0" of the overall structure and varying in length from 163'-5-3/8" to 197'-4-1/4".

The impressive main channel span arch is a spandrel-braced two-hinged steel through arch. "It is a span of major proportions," reported *Engineering News-Record* in 1931.¹ *Engineering News-Record* further described the structure:

Only the lower chord intersects the roadway. Piers are granite faced, as are the piers of the flanking deck-arch spans and the pylons at the portals of the main arch. These pylons, of equal height, are 32 x 17 ft. in plan, hollow, and with two crosswalls. At one end of the bridge they extend to 60 ft. above the roadway, at the opposite end to 35 ft....

The bottom chord of the arch, with a maximum section of 251 sq. in., is a closed box section of silicon steel, tapered in depth from 54 in. at the pin to 34 in. at the crown. Except for the first two end panels, the top chord also utilizes silicon steel. It is of a consistent depth of 24 1/4" throughout its length, with a section area varying from 47 to 86 sq. in. Double angle lacing is used top and bottom. Web members are of carbon or silicon steel as the stress conditions dictated....²

Like the now-demolished Point Bridge spanning the Allegheny River, the contractor — Fort Pitt Bridge Works of Pittsburgh, Inc. — built the structure as a cantilever. According to *Engineering News-Record*,

The McKee's Rocks arch was erected as a cantilever, with anchorages provided by eyecbar tiebacks connected to the adjoining deck-arch spans. After the first six panels from either end were erected and landed on steel-bent falsework, this portion acted as an anchor arm for the final cantilever arms which came to closure at the center of the span. The bridge was swung as a three-hinged arch and converted to a two hinged arch under normal temperature and steel dead load.³

¹ "Three Notable New Bridges at Pittsburgh," *Engineering News-Record* (23 April 1931): 677.

² "Three Notable New Bridges," 678.

³ "Three Notable New Bridges," 679.

HISTORICAL INFORMATION

Context

The McKee's Rocks Bridge spans the Ohio River between Pittsburgh and the borough of McKee's Rocks. The Pittsburgh (east) side of the bridge was originally part of the borough of Manchester (later Allegheny City) before its incorporation into Pittsburgh in 1907. McKee's Rocks, originally part of Stowe Township, was incorporated as a borough in 1892. With an economy centered on the steel industry and a large population of eastern European immigrants, McKee's Rocks mirrored the development of other boroughs surrounding the city of Pittsburgh during the early twentieth century.⁴ After 1880, a number of large iron and steel companies opened plants in McKee's Rocks.⁵ The community suffered the fate of its Ohio River valley counterparts during the 1980s, however, with the decline of the steel industry.⁶

On the Pittsburgh (formerly Allegheny City) side of the Ohio River, the section in which the McKee's Rocks Bridge approach is located once was dominated by mixed industries. Steel mills once were interspersed with rail yards, stock yards, and locomotive works. One of the most dominant features in the vicinity is the penitentiary at Woods Run along the banks of the Ohio River.

Construction

Although McKee's Rocks Bridge was constructed over the course of two years between August 1929 and August 1931, it took Allegheny County more than a decade and a half of negotiations with the U.S. War Department before ground could be broken. Planning a bridge to span the Ohio River between Pittsburgh's North Side neighborhood and the borough of McKee's Rocks began in the summer of 1914, when Allegheny County Commissioners instructed the County Engineer to begin drawing up plans and cost estimates for a bridge across the Ohio River "beginning on the hill near the Indian Mound in the Borough of McKee's Rocks and ending with approaches to Preble and California Avenues at Wood's Run, North Side, City of Pittsburgh."⁷

Two weeks after the County Engineer (then James G. Chalfant) was instructed to start work on the planning stages for the proposed McKee's Rocks Bridge, Allegheny County Board of Commissioners hired Pittsburgh civil engineer Edwin K. Morse to act as consulting engineer

⁴ Roy Lubove, *Pittsburgh* (New York: New Viewpoints, 1976), 185.

⁵ Edward K. Muller, "Metropolis and Region: A Framework for Enquiry Into Western Pennsylvania," in *City at the Point: Essays on the Social History of Pittsburgh*, ed. Samuel Hays (Pittsburgh: Univ. of Pittsburgh Press, 1989), 197.

⁶ John P. Hoerr, *And the Wolf Finally Came* (Pittsburgh: Univ. of Pittsburgh Press, 1988).

⁷ Allegheny County, Pennsylvania, *Commissioners' Minutes*, vol. 5 (Office of the County Manager, Allegheny County Courthouse, Pittsburgh, Pa.), 549.

for the project at a rate of \$5,000 per year.⁸ Less than one year later, on 26 March 1915, Allegheny County Board of Commissioners was presented with a cost proposal prepared by Chalfant and Morse for the new structure, with a proposed channel span of 1,100'-0". Chalfant and Morse calculated that construction of the superstructure, substructure and approaches would cost \$1,446,562, and rights-of-way to be acquired from the city of Pittsburgh and from McKee's Rocks would cost an additional \$150,000.⁹ After formally receiving the plans, county commissioners made a motion that Chalfant and Morse "submit the plans to the War Department within ten days for its approval and at the same time attempt to get the length of span reduced."¹⁰

The request to shorten the channel span on the proposed McKee's Rocks Bridge touched off a debate more than a decade long between Allegheny County and the U.S. Department of War. By 27 August 1915, the War Department had refused the county's initial plea to shorten the channel span and the Allegheny County Board of Commissioners passed a resolution reflecting their defeat:

BE IT RESOLVED that the County Engineer be instructed to accept the 1,100 feet span and to complete plans and specifications so that bids may be taken and the county solicitor be instructed to comply with the rulings of the War Department and prepare an Act to present to Congress authorizing the construction of this bridge.¹¹

The act petitioning Congress was prepared and submitted for its approval. The U.S. House of Representatives approved the bill to bridge the Ohio River at McKee's Rocks 24 January 1919 and the bill won the Senate's approval 20 February 1919. On 27 February 1919, Congress passed *An Act Granting the consent of Congress to the county of Allegheny, Pennsylvania, to construct, maintain, and operate a bridge across the Ohio River at or near McKees Rocks Borough...*¹²

Although the county had cleared all of the regulatory hurdles for constructing a bridge over navigable waters, Allegheny County's attempts to build the McKee's Rocks Bridge languished at the hands of an unyielding War Department. Despite repeated pleas by county officials to reduce the channel span from 1,100'-0" to 900'-0", the Army Corps of Engineers was

⁸ Allegheny County, *Commissioners' Minutes*, 5:553.

⁹ Allegheny County, *Commissioners' Minutes*, 6:13.

¹⁰ Allegheny County, *Commissioners' Minutes*, 6:13.

¹¹ Allegheny County, *Commissioners' Minutes*, 6:66.

¹² U.S. Congress, House, *An Act Granting the consent of Congress to the county of Allegheny, Pennsylvania, to construct, maintain, and operate a bridge across the Ohio River at or near McKees Rocks Borough, in the county of Allegheny, in the Commonwealth of Pennsylvania*, 65th Cong., 3rd sess., 1919, H. R. 13647.

intractable. After 1922, no mention of the McKee's Rocks Bridge appears in the minute books of the Allegheny County Board of Commissioners.

Plans to construct the McKee's Rocks Bridge remained dormant throughout much of the 1920s. By the end of 1928, however, it appears the project was revived. The Allegheny County Planning Commission on 1 November 1928 approved a revised plan to construct the bridge.¹³ The McKee's Rocks Bridge project was given a second lease on life on 13 February 1929 when the U.S. Congress passed *An Act To revive and reenact the Act entitled "An Act Granting the consent of Congress to the county of Allegheny, Pennsylvania, to construct, maintain, and operate a bridge across the Ohio River at or near McKees Rocks Borough..."*¹⁴ Knowing that Congress was about to revive its earlier statute — the bill passed the House of Representatives on 22 December 1928 and the Senate one month later, on 26 January 1929 — Allegheny County officials began preparing for construction.¹⁵ On 5 February 1929, Allegheny County Department of Public Works Director Norman Brown advised county commissioners that he had located a vacant store room that he believed would "very well answer the purpose of a field office during construction of McKee's Rocks Bridge No. 2 Ohio River."¹⁶ "[T]his can be rented for \$25 per month, including light and heat — running water," he added. The request subsequently was approved and ordered charged to "People's Bond 52-X."

On 2 April 1929, county commissioners authorized Brown to "advertise for bids for all contracts necessary to the construction of the McKee's Rocks Bridge and its approaches, at an estimated cost of \$7 million."¹⁷ Bids subsequently were received and opened for construction of the Ohio River Boulevard and McKee's Rocks Bridge approaches and the construction of bridge masonry and approach filling on 2 July 1929. Long-established local contractors Booth & Flinn Company were awarded the contract 12 July 1929 to construct the approaches to the bridge for

¹³ P. M. Farrington, S. J. Fenves, and J. A. Tarr, *The Allegheny County Highway and Bridge Program 1924-1932*, Report No. R-82-132 (Pittsburgh: Carnegie Mellon Univ. Department of Civil Engineering, 1982), 112. No records have been located to determine why the U.S. War Department capitulated to Allegheny County's request for a channel span under the 1,100'-0" span mandated by the War Department during the county's previous bid to build the bridge. The revised design of the bridge called for the 800'-0" channel span ultimately built — 100'-0" less than what Allegheny County Engineer Chalfant and consulting engineer Morse requested between 1915 and 1921.

¹⁴ House, *An Act To revive and reenact the Act entitled "An Act Granting the consent of Congress to the county of Allegheny, Pennsylvania, to construct, maintain, and operate a bridge across the Ohio River at or near McKees Rocks Borough, in the county of Allegheny, in the Commonwealth of Pennsylvania,"* 70th Cong., 2nd sess., 1929, H. R. 14451.

¹⁵ House, *Bridge Across Ohio River Between Pittsburgh and McKee's Rocks, Pa.*, 70th Cong., 2nd sess., 1928, H. Report 1977; Senate, *Bridge Across Ohio River Between Pittsburgh and McKee's Rocks, Pa.*, 70th Cong., 2nd sess., 1929, S. Report 1526.

¹⁶ Allegheny County, *Commissioners' Minutes*, 12:19.

¹⁷ Allegheny County, *Commissioners' Minutes*, 12:61.

the low bid of \$3,344,848; their nearest competitor, Walter S. Rae, submitted a bid for a little over \$3.6 million.¹⁸ The contract for construction of the bridge masonry was awarded the same day to Dravo Contracting Company for \$1,780,150.¹⁹ Bids for construction of the bridge's superstructure were not opened until 28 January 1930. The Fort Pitt Bridge Works Company of Pittsburgh was awarded the contract on 6 February 1930 for \$1,539,700.²⁰ Also bidding for the superstructure contract were the McClintic-Marshall Company (\$1,588,000), the Independent Bridge Company (\$1,647,840) and the American Bridge Company (\$1,718,550).

By the time all of the contracts were awarded for construction of the McKee's Rocks Bridge, its cost had increased by more than 500 percent (see Table 1).

Table 1 Cost Comparison of McKee's Rocks Bridge, 1915 and 1930.

Component	1915 Estimate	1930 Cost
Substructure	\$276,948.00	\$1,780,150.00
Approaches	99,540.00	4,714,381.20
Superstructure	1,070,074.00	1,539,700.00
Totals	\$1,446,562.00	\$8,034,231.20

Allegheny County Department of Public Works

The Allegheny County Department of Public Works, responsible for the oversight of design and construction of the McKee's Rocks Bridge, was reorganized in 1924 to meet the demands of an ambitious county-wide bridge- and highway-building program. Prior to 1924, bridge building in Allegheny County fell under the purview of the County Engineer — an appointed position created in 1873.²¹ The County Engineer's office was one of five county departments responsible for the construction and maintenance of public works.²²

In 1923, the Pennsylvania legislature passed an act authorizing county commissioners to create a county planning commission. One of the nine original members of Allegheny County's Planning Commission was Norman F. Brown, a former head of Pittsburgh's City Works

¹⁸ Allegheny County, *Commissioners' Minutes*, 12:11.

¹⁹ Allegheny County, *Commissioners' Minutes*, 12:110.

²⁰ Allegheny County, *Commissioners' Minutes*, 12:227.

²¹ Farrington, et al., *Allegheny County Highway and Bridge Program*, 44.

²² Farrington, et al., *Allegheny County Highway and Bridge Program*, 44.

Department and a former engineer for the Pennsylvania Railroad.²³ Brown was appointed 7 January 1924 as Director of the Department of Public Works. He immediately initiated a substantial reorganization of the department that included concentrating all of the power in his office and the elimination of the forty-three-person staff that comprised the County Engineer's office. According to Farrington, Fenves, and Tarr, "The County Engineer's office was rendered useless as the staff was moved to other divisions."²⁴

Former County Engineer Vernon R. Covell (d. 21 December 1949) was once a major figure in the construction of Allegheny County bridges. He assumed the office in 1922 after the premature death of his predecessor James G. Chalfant. Covell was the engineer at the helm of Allegheny County's massive Allegheny River Bridge Raising Program after the U.S. Secretary of War determined in 1917 that six structures across that river were obstacles to navigation.²⁵ The reorganization of the Allegheny County Department of Works left Covell with no effective political power and placed him in an adversarial relationship with Director Brown. Farrington, Fenves, and Tarr excerpted a 1926 Allegheny County Controller's Report in which Covell's plight was detailed:

V. R. Covell, who had been County Engineer for some years, an unusually competent and representative man, was given a desk in the hallway of the building in which the Department of Public Works is housed where he has since languished without serious responsibility except to be used as a convenience when errors are made or things bungled by others in the Department.²⁶

CONTRACTORS

Fort Pitt Bridge Works of Pittsburgh, Inc.

The Fort Pitt Bridge Works of Pittsburgh, Inc., received its corporate charter from the Commonwealth of Pennsylvania on 6 May 1896.²⁷ The company was formed "for the purpose of

²³ Farrington, et al., *Allegheny County Highway and Bridge Program*, 46.

²⁴ Farrington, et al., *Allegheny County Highway and Bridge Program*, 47.

²⁵ For more information on the Bridge Raising Program, see U.S. Department of the Interior, Historic American Engineering Record (HAER) No. PA-447, "Washington Crossing Bridge," 1997, Prints and Photographs Division, Library of Congress, Washington, D.C.

²⁶ Farrington, et al., *Allegheny County Highway and Bridge Program*, 47. In its book, *Historic Highway Bridges of Pennsylvania* (1986), the Pennsylvania Department of Transportation incorrectly cites Covell's position and affiliation. He is identified as "Pittsburgh's Department of Streets, chief engineer," 81, and as "Chief Engineer for Pittsburgh's Bureau of Bridges," 102.

²⁷ Allegheny County, Pennsylvania, *Charter Book*, vol. 22 (Archives, Allegheny County Courthouse, Pittsburgh, Pa.), 241.

manufacturing architectural, structural and ornamental iron and steel and cast and wrought iron and steel and iron and steel in combinations with other metals and with wood.”

Capitalized at \$90,000, the company was chartered by five German immigrants, residents of Allegheny City and Pittsburgh. Interestingly enough, each of the company's founding subscribers had backgrounds neither in metal work nor in bridge building, but rather as butchers and brewers in the German community of Allegheny City.

The majority shareholder of the Fort Pitt Bridge Works of Pittsburgh, Inc., was Gottlieb Christian Dellenbach. Dellenbach was a third-generation slaughterhouse owner and butcher whose family owned a large farm in rural Allegheny County and who also operated a slaughterhouse along Butcher's Run in former Allegheny City (now Pittsburgh's North Side neighborhood). Much of Dellenbach's wealth was inherited after the death of his father, Christian, in 1890. During the late 1880s, Dellenbach was a partner with another Pittsburgh butcher, Emil Winter.

Together, Winter and Dellenbach founded the slaughterhouse known as Emil Winter's Abattoir. It was the first slaughtering establishment built on Herr's Island. In a move to emulate the Chicago Union Stock Yards (and the earlier Pennsylvania Central Stock Yards in East Liberty, now part of Pittsburgh) and further vertically integrate their transportation-tanning empire, the sons of Pittsburgh tanner and railroad owner James Callery (along with four partners) founded the Pittsburgh and Allegheny Abattoir Company in 1893. One year later, the company changed its name to the Pittsburgh Provision Company, and the following year it acquired Emil Winter's Abattoir on the southern end of Herr's Island, turning Herr's Island into more than forty acres of stockyards and meat-packing and byproducts facilities.²⁸

William Eberhardt, Theodore Straub, and George Washington Eberhardt, three of the remaining shareholders (the fourth was Herman Remer Blickley), were prominent brewers in the former Allegheny City.²⁹ In 1883, three traditional German brewerics, operated by the Eberhardt, Ober, and Straub families and located above Butcher's Run (overlooking the present site of the Heinz Foods plant) in Allegheny City, merged to form the Eberhardt and Ober Brewery.

The only member of the original Fort Pitt Bridge Works of Pittsburgh to have been exposed to metal fabrication may have been Straub. For a brief period during the early 1870s, several Straub family members were partners in a small Allegheny City foundry — the Jackson Steel Works — along with tanner Adam Wiese.³⁰

²⁸ The information on Dellenbach is derived from research in progress by the author on the livestock and leather industries of Pittsburgh and former Allegheny City.

²⁹ There is no additional information available on Blickley.

³⁰ David S. Rotenstein, unpublished research notes, n.d.

In addition to constructing the McKee's Rocks Bridge, the Fort Pitt Bridge Works of Pittsburgh, Inc. also built the cantilevered Point Bridge over the Monongahela River in 1927.³¹

Booth and Flinn Company

The company responsible for construction of the McKee's Rocks Bridge's approaches was Booth and Flinn Company of Pittsburgh, a noted general contracting firm also responsible for construction of the world's longest concrete arch bridge, the George Westinghouse Bridge in East Pittsburgh.³² The Booth and Flinn Company was chartered 10 May 1927 by George H. Flinn, William F. Hill and W. J. Wiseman.³³ The firm was founded as "a general contracting business," to engage in

the designing, constructing, enlarging, repairing and moving or otherwise engaging in any work upon buildings, roads, highways, manufacturing plants, bridges, piers, docks, tunnels, subways, tubes, shafts, water works, railroads, railway structures and all iron, steel, wood, masonry, concrete and each constructions and to own, manufacture and furnish the building materials and supplies connected therewith.³⁴

George H. Flinn, the principal shareholder in the company, graduated from Yale University in 1897 and followed his father, William Flinn, into the construction business.³⁵ The elder Flinn was an English immigrant who found work in several Pittsburgh brickyards before forming a partnership with James J. Booth. The predecessor to the Booth and Flinn Company (builders of the McKee's Rocks Bridge) was a limited partnership established 15 April 1893 by Booth, Flinn, George J. Albertson, and Robert McCance. The original Booth and Flinn Limited — capitalized at \$750,000 — was formed for

³¹ Farrington, et al., *Allegheny County Highway and Bridge Program*; Norman F. Brown, "New Cantilever Bridge Designed with Architects' Cooperation," *Engineering News-Record* 95 (16 July 1925): 107. See also U.S. Department of the Interior, HAER No. PA-5, "Point Bridge," 1973, Prints and Photographs Division, Library of Congress, Washington, D.C.

³² See U.S. Department of the Interior, HAER No. PA-446, "George Westinghouse Bridge," 1997, Prints and Photographs Division, Library of Congress, Washington, D.C.

³³ Allegheny County, *Charter Book*, 60:528.

³⁴ Allegheny County, *Charter Book*, 60:528.

³⁵ George Fleming, *Biographical, History of Pittsburgh and Environs*, vol. 4 (New York: American Historical Society, 1922), 298-300; Pittsburgh Index Company, *Business Proclamation of the Pittsburgh Index* (Pittsburgh: Pittsburgh Index Company, 1903), 168.

the construction of sewers, operation of stone quarries, manufacture of all kinds of paving material, the operation of brick yards and manufacture of brick and tile, the construction of buildings, the grading, paving and curbing, and otherwise improving of streets, alleys, roads and private property and to carry on a general contracting business.³⁶

Dravo Engineering Works

The Company responsible for construction of the bridge's substructure, the Dravo Engineering Works, was chartered 17 April 1918 by Frank R. Dravo, Ralph M. Dravo, John D. Berg, Thomas Doyle, Vere B. Edwards, A. Daria, and James L. Cox. Capitalized at \$1 million, the company was formed for the "manufacture of iron or steel or both . . . and of all such work as is manufactured by general engineering foundry and machine business."³⁷

Construction and Opening of the McKee's Rocks Bridge

Construction of the McKee's Rocks Bridge began 12 August 1929 and was completed two years later.³⁸ The bridge was dedicated 19 August 1931 with a parade of 2,000 cars.³⁹ The bridge ultimately was built as part of the implementation of an ambitious transportation plan undertaken by Allegheny County. According to Norman F. Brown, Director of the Allegheny County Department of Public Works, the county set out to construct a triple-tiered highway system comprised of riverside boulevards, radial highways and circuit routes.⁴⁰

The McKee's Rocks Bridge project was integrally tied to the construction of Ohio River Boulevard on the Pittsburgh side of the Ohio River. One of the riverside boulevards described by Brown, Ohio River Boulevard was part of a system "following with unbroken continuity, as closely as possible, each bank of three rivers; these riverside Boulevards to be bonded together at suitable places with adequate bridges."⁴¹ The McKee's Rocks Bridge was one of those bridges.

³⁶ Allegheny County, Pennsylvania, *Partnership Book*, vol. 10 (Archives, Allegheny County Courthouse, Pittsburgh, Pennsylvania), 60.

³⁷ Allegheny County, *Charter Book*, 55:476.

³⁸ Vernon R. Covell, "Description of McKee's Rocks Bridge," in *McKee's Rocks Bridge, Ohio River Boulevard: Souvenir Pamphlet Commemorating the Opening of the Twelve Million Dollar Bridge and Boulevard Project of Allegheny County's Which Was Dedicated to the Service of the People August 19, 1931* (Pittsburgh: Allegheny County Department of Public Works, 1931).

³⁹ "Throngs Join in Opening of New Bridge and Road," *Pittsburgh Post-Gazette* (20 August 1931): 1.

⁴⁰ Norman F. Brown, "The Ohio River Boulevard and McKee's Rocks Bridge: Important Links in Allegheny County's Ultimate Highway System," in *McKee's Rocks Bridge, Ohio River Boulevard*.

⁴¹ Brown, "The Ohio River Boulevard and McKee's Rocks Bridge."

According to Brown, transportation needs had outgrown existing Ohio River crossings both up and downstream from the site where the McKee's Rocks Bridge was built:

For a great many years the need of additional crossings over the Ohio River has been an urgent necessity. Manufacturing plants on both sides of the river have frequently urged the construction of a bridge which would carry traffic across the river at some point between the Point Bridge and the Sewickley Bridge. Prior to the construction of this [McKee's Rocks] bridge it was necessary for all traffic to go several miles out of its direct course to cross the river.... This structure is now completed and will fill a long want.⁴²

The combined project of constructing Ohio River Boulevard and the new McKee's Rocks Bridge cost Allegheny County more than \$12 million. Despite its cost, however, most residents in the Pittsburgh region hailed the new bridge. Not only did the bridge free cross-river traffic from costly detours, but it eliminated a deadly ferry crossing. "The effect of the improvements will be felt throughout the district," the *Pittsburgh Post-Gazette* editorialized on the day of the bridge's opening.⁴³

The McKee's Rocks Bridge was acquired by the Pennsylvania Department of Transportation as one of many structures transferred to the state on 18 September 1961 when the Pennsylvania legislature passed an act "Establishing and taking over as State Highways certain county highways, or sections thereof, tunnels, bridges, viaducts and approaches thereto...."⁴⁴ In the summer of 1988, the McKee's Rocks Bridge was listed in the National Register of Historic Places as a contributing element to the multiple resource listing "Highway Bridges Owned by" the Commonwealth of Pennsylvania, Department of Transportation."

An engineering report on the McKee's Rocks Bridge prepared during the 1970s found the structure suffering from "age, a faulty drainage system, disintegrating sidewalks and a severe environment."⁴⁵ Although the report recommended a rigorous staged program of repairs and maintenance, the investigators noted, "The useful life of the bridge structure will depend greatly on the degree of maintenance which is provided once all the recommended repairs are completed."⁴⁶ "Providing all repairs are made and the degree of maintenance is such as to prevent deterioration, the useful life of this bridge structure is estimated to be approximately twenty (20) years."

⁴² Brown, "The Ohio River Boulevard and McKee's Rocks Bridge."

⁴³ "A Dedication of Importance," *Pittsburgh Post-Gazette*, 19 August 1931.

⁴⁴ Commonwealth of Pennsylvania, P.L. 1389 (1961).

⁴⁵ Steinman, Boynton, Gronquist and London, "McKee's Rocks Bridge: Investigation of Structural Condition," n.d. (bridge inspection file, BMS No. 02-3104-0030-0000, PennDOT District 11-0, Bridgeville, Pennsylvania), 19.

⁴⁶ Steinman, et al., "McKee's Rocks Bridge," 21.

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